

REMARKS

Claims 1-12 and 14-36 are now pending in the application. Minor amendments have been made to Claim 7 to simply overcome the objections to the specification and rejections of the claims under 35 U.S.C. § 112. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-8, 10, and 13 stand rejected under 35 U.S.C. 102(b) as being anticipated by Birrell et al. (U.S. Patent 5,805,803). Applicant has cancelled Claim 13 since it would be redundant in light of amended Claim 1.

Birrell discloses a method for a client 110 to access private resources 161, 162 and 163 that are located behind a firewall 130 and a tunnel 140. The method includes sending a communication request to the tunnel via an internetwork 120 and through the firewall; authenticating the request via a checker 141; and redirecting the communication to a proxy 143. The proxy then handles all communications between the private resources and the client.

By comparison, the method of the applicants' invention facilitates direct communication between peers that communicate via an internetwork. The method includes determining communication data of a first network peer that is connected to a first network and that communicates with an internetwork through a first tunnel. The communication data includes an internetwork address and port for the first network peer

to receive messages via the internetwork. The method registers the communication data with a lookup service that is available through the internetwork.

When a second network peer, which is connected to a different network than the first network peer, attempts to communicate with the first network peer, the second network peer first sends a communication request to the lookup service. The lookup service provides the communication data of the first network peer to the second network peer. The second network peer can then send messages, according to the communication data, directly to the first network peer via the first tunnel.

The applicants' invention of Claim 1 is accordingly markedly different from Birrell. Namely, the applicants' method of Claim 1 includes sending messages, according to the communication data, from the second network peer directly to the first network peer via the first tunnel.

Applicants respectfully aver that Birrell does not anticipate such a method of directly sending messages between peers. Instead, Birrell introduces a "third-party", namely the proxy server, and describes a method that only allows indirect communication between the two network peers via the proxy server.

For this reason, applicant respectfully avers that Claim 1 is allowable over Birrell. Dependent claims 2-8 and 10 depend either directly or indirectly from independent Claim 1. Without conceding the examiner's position, applicant believes that these dependent claims are now also allowable over Birrell for at least the same reason.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 12-23 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Nessett et al. (U.S. Patent 6,055,236). Claim 13 has been cancelled, thereby rendering its rejection moot.

Nessett discloses a distributed network address translation (DNAT) system and method for locating network services. The system includes computing devices on a LAN 12. A router 26 connects the LAN to a network access provider 34. Local IP addresses of the computing devices are not “globally unique” and therefore cannot be addressed by the network access provider. To work around this issue, the router maintains a table that correlates each of the local IP addresses to a group of port numbers. The groups of port numbers are all associated with a globally unique IP address that is assigned to the router. Third party devices, such as a telephone network 32 and an intranet or internet 30, can therefore communicate with the computing devices in the LAN by addressing them through their respective port numbers assigned to the router’s globally unique internet address.

It is important to note that the router’s table is only accessible, via request messages, to the computing devices on the LAN. Therefore, a device outside of the LAN cannot unilaterally discover the group of port numbers that the router has associated with a particular computing device on the LAN. A limitation of such an architecture is that devices outside of the LAN cannot address and initiate communications with a particular computing device on the LAN.

By comparison, the method and apparatus of the applicants’ invention facilitates initiating communication unilaterally. The method includes determining communication

data of a first network peer that is connected to a first network and that communicates with an internetwork through a first tunnel. The communication data includes an internetwork address and port for the first network peer to receive messages via the internetwork. The method registers the communication data with a lookup service that is available through the internetwork.

When a second network peer, which is connected to a different network than the first network peer, attempts to communicate with the first network peer, the second network peer first sends a communication request to the lookup service. The lookup service provides the communication data of the first network peer to the second network peer. The second network peer can then send messages, according to the communication data, directly to the first network peer via the first tunnel. This is feasible because the lookup service is available to both of the peers despite their being on different networks.

The applicants' independent Claims 1, 14, and 16 are accordingly markedly different from Nessett. Namely, Claims 1, 14, and 16 all include making the protocol or communication data of the peers available through an internetwork, such as the Internet.

Applicants respectfully aver that Nessett does not anticipate making the protocol or communication data of the peers available through an internetwork. Instead, Nessett keeps a port allocation table in the router, and the table is only available to the computing devices that are connected to the LAN associated with router.

For this reason, applicant respectfully avers that independent Claims 1, 14, and 16 are allowable over Nessett. The remaining claims depend either directly or indirectly

from independent Claims 1, 14, and 16. Without conceding the examiner's position, applicant believes that these dependent claims are now also allowable over Nessett for at least the same reason.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 9, 11, 24-33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nessett et al. (U.S. Patent 6,055,236) in view of Birrell et al. (U.S. Patent 5,805,803). Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nessett and Birrell in view of Mei. Applicants respectfully traverse these rejections.

Dependent Claims 9, 11, and 24-35 depend, either directly or indirectly, from amended Independent Claims 1, 14, and 16. As explained above, the amended Independent Claims are not anticipated by Nessett or Birrell. Therefore, the combination of Nessett and Birrell inherently does not provide all of the elements of Dependent Claims 9, 11, 24-33 and 35 and cannot establish a *prima facie* case of obviousness. Mei does not provide the elements that are omitted from Nessett and Birrell. The applicant therefore believes that Claims 9, 11, and 24-35 are also in a condition for allowance.

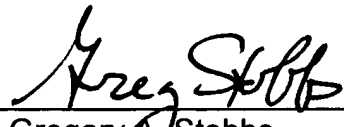
CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office

Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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By: 
Gregory A. Stobbs
Reg. No. 28,764

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

GAS/EWB